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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,516	01/18/2002	Takashi Toyofuku	Q67107	7766

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Washington, DC 20037-3213

EXAMINER

POON, KING Y

ART UNIT	PAPER NUMBER
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2625

MAIL DATE	DELIVERY MODE
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06/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/050,516	TOYOFUKU, TAKASHI	
	Examiner	Art Unit	
	King Y. Poon	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 7-20 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 21 and 23-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/23/2007 has been entered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation of "wherein during execution of the imaging job by the second imaging device and when the first imaging device is determined to again be operable, the operation of the second imaging device is stopped and the execution of the imaging job is continued by the first imaging device" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 26-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation of "wherein during execution of the imaging job by the second imaging device and when the first imaging device is determined to again be operable, the operation of the second imaging device is stopped and the execution of the imaging job is continued by the first imaging device" is subject matter which was not described in the specification in such a way as to reasonably

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convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6, 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lobiondo (US 5,287,194) in view of Fan et al (US 6,310,692).

Regarding claims 1, 25: Lobiondo teaches a system (fig. 1) for forming an image on a recording medium using a network (column 3, lines 20-25), the system comprising: a plurality of imaging devices (printer 10, column 3, lines 30-35) each in communication with the network and operable for forming an image on a recording medium based on image information received via the network; an imaging indicating device (local stations, column 3, lines 40-45) in communication with the network, the imaging indicating device outputting job information including at least image information and output device designation information via the network for designating a first imaging device included in the plurality of imaging devices (column 5, lines 15-20); and a plurality of imaging management devices (the hardware/software of the scheduler 50 that is located in various local workstations, column 3, lines 40-45, fig. 3) each in communication with the

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network (e.g., analyzes printer on the network, column 4, lines 45-50, column 6, lines 10-20) and including program logic (routines, fig. 3) that performs steps comprising determining whether the first imaging device is not busy (column 5, lines 15-30) and if so, causing an imaging job for forming an image based on the image information is automatically executed by the first imaging device (column 7, lines 15-20, column 7, lines 35-36), and when it is determined that the first imaging device is busy, a second imaging device of the same kind as the first imaging device is automatically (without user input) selected (column 5, lines 34-40) from among the plurality of imaging devices and the imaging job is automatically executed by the second imaging device, wherein the imaging devices, the imaging indicating device and the imaging management devices are connected by a network (column 3, lines 15-35).

Lobiondo does not specifically teach detecting whether the printer is operable or not, although it would have been obvious that when a printer is not operable, the scheduler would not try to schedule the printer to a non-operable printer.

Fan, in the same area of monitoring the status of a printer, teaches it is well known in the art to detect whether a printer is operable by a print management system (column 2, lines 5-20, column 2, lines 35-45).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Lobiondo to include: detecting whether the printer is operable or not such that the scheduler would not schedule a print job to the disable printer.

Regarding claim 2: Lodiondo teaches wherein the imaging management devices determine, before the imaging job is executed, whether the first imaging device is operable (column 4, lines 45-68, teaches the printer is analyzed before the print job is being printed by the printer).

Regarding claim 3: Fan teaches wherein, during execution of the imaging job, the imaging management devices determines whether the first imaging device is operable (column 2, lines 2-20, Fan teaches printer inherently would become disable during printing, and would be detected).

Regarding claim 4: Lobiondo teaches wherein the imaging management devices store and hold performance information of the imaging devices (column 4, lines 1-15), and when it is determined that the first imaging device is not operable, the imaging management devices mutually correct a difference of performance (column 3, lines 64-65, changes the printer from operable to non operable, and a slower printer would become a faster printer because the previously fast printer becomes disable, column 4, lines 50-60) between the first imaging device and the second imaging device, and execute the imaging job with the second imaging device (column 5, lines 15-35).

Regarding claim 5: Lobiondo teaches wherein, during execution of the imaging job by the second imaging device, the imaging management devices determine whether the first imaging device is operable (column 2, lines 2-20, Fan teaches printer inherently would become disable during printing, and would be detected), and when the first imaging device is operable (when the printer become available at 445, during the cycle

of fig. 4, the printer would be used again, fig. 4, Lobiondo), the imaging management devices control so that the imaging job is executed again by the first imaging device.

Regarding claim 6: Lobiondo teaches, wherein the imaging management devices store and hold performance information of the plurality of imaging devices (column 4, lines 1-15), and when it has been determined that the first imaging device is operable, the imaging management devices interpolate the difference of performance between the first imaging device and the second imaging device (column 4, lines 58-61), and the imaging job is executed by the first imaging device (the fastest printer that is operable).

Regarding claim 26: Lobiondo teaches wherein during execution of the imaging job by the second imaging device and when the first imaging device is determined to again be operable, the operation of the second imaging device is stopped and the execution of the imaging job is continued by the first imaging device (440, 450, fig. 4)

Regarding claim 27: Lobiondo teaches wherein the imaging job being executed by the second imaging device is reallocated to the first imaging device (440, fig. 4, when the first printer is operable, 440 will be yes).

7. Claim 21, 28, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lobiondo (US 5,287,194) in view of Fan et al (US 6,310,692) and Nosaki (US 5,673,373).

Regarding claim 21: Lobiondo teaches a system fig. 1) for printing an image via a network (column 3, lines 20-30), the system comprising: (a) a plurality of printers (10,

column 3, lines 25-35) comprising different types with some printers being of the same type, and each printer when in an operable state forming an image according to data received by the printer from the network; (b) a computer (30, column 3, lines 25-35) which outputs image and printer designation information to the network for printing an image in accordance therewith on a printer among the plurality of printers designated in the information (column 5, lines 15-20); and (c) a printer server (server with a scheduler, column 3, lines 40-45) which receives the information output from the computer, the printer server including program logic that when executed performs steps including: (i) determining via the network whether the printer designated in the information received from the computer is busy (column 5, lines 15-20; (ii) choosing the designated printer for printing the image if the designated printer is in an operable state; (iii) if the designated printer is not in an operable state, determining via the network if another printer of the same type as the designated printer is in an operable state and if so, choosing the another printer for printing the image (column 5, lines 29-31); and (iv) outputting the data via the network to the chosen printer (column 5, lines 29-31).

Lobiondo does not specifically teach detecting whether the printer is operable or not, although it would have been obvious that when a printer is not operable, the scheduler would not try to schedule the printer to a non-operable printer.

Fan, in the same area of monitoring the status of a printer, teaches it is well known in the art to detect whether a printer is operable by a print management system (column 2, lines 5-20, column 2, lines 35-45).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Lobiondo to include: detecting whether the printer is operable or not such that the scheduler would not schedule a print job to the disable printer.

Lobiondo also does not teach the server converting information received from the computer to image data in a format suitable for the chosen printer to print the image.

Nosaki, in the same area of printing using a print server, teaches the server converting information received from the computer to image data in a format suitable for the chosen printer to print the image (column 6, lines 8-15).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Lobiondo to include: the server converting information received from the computer to image data in a format suitable for the chosen printer to print the image.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Lobiondo by the teaching of Nosaki because: (a) it would have reduced the load of the client computer and would have allowed users with low cost computer to use the system of Lobiondo, (b) a server is a much power computer and would have convert the print data must faster compare to the client computer, and (c) it would have allowed Lobiondo's invention to be used in all situations to increase market share.

Regarding claim 28: Lobiondo teaches wherein during execution of the imaging job by the second imaging device and when the first imaging device is determined to

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again be operable, the operation of the second imaging device is stopped and the execution of the imaging job is continued by the first imaging device (440, 450, fig. 4)

Regarding claim 29: Lobiondo teaches wherein the imaging job being executed by the second imaging device is reallocated to the first imaging device (440, fig. 4, when the first printer is operable, 440 will be yes).

8. Claims 23, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lobiondo (US 5,287,194) in view of Fan et al (US 6,310,692) as applied to claim 1 and further in view of Nosaki (US 5,673,373).

Lobiondo also does not teach the server converting information received from the computer to image data in a format suitable for the chosen printer to print the image.

Nosaki, in the same area of printing using a print server, teaches the server converting information received from the computer to image data in a format suitable for the chosen printer to print the image (column 6, lines 8-15).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Lobiondo to include: the server converting information received from the computer to image data in a format suitable for the chosen printer to print the image.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Lobiondo by the teaching of Nosaki because: (a) it would have reduced the load of the client computer and would have allowed users

with low cost computer to use the system of Lobiondo, (b) a server is a much power computer and would have convert the print data must faster compare to the client computer, and (c) it would have allowed Lobiondo's invention to be used in all situations to increase market share.

Response to Arguments

9. Applicant's arguments filed 10/2/2006 have been fully considered but they are not persuasive.

With respect to applicants argument that claims Lobiondo does not disclose that the portion of imaging job already allocated to printer A is executed again by printer B, when printer B becomes operable, has been considered.

In reply: the limitation of "the portion of imaging job already allocated to printer A is executed again by printer B, when printer B becomes operable" is not part of the claimed limitation of claim 1 and claim 21. Such limitation is not disclosed in the drawing or specification. On the contrary, page 8, lines 11-18 teaches if the printer printing the imaging job (print job) is inoperable, the print job is **continue** by another printer. The specification does not disclose the print job is printed by another printer from the beginning. Continue, according to dictionary.com, means to carry on from the point of suspension or interruption.

With respect to applicant's argument that Lobiondo, column 6, lines 63-66 teaches against redistributing an allocated print job among printer, has been considered.

In reply: Column 6, lines 63-66 of Lobiondo is one embodiment of Lobiondo's teaching. Fig. 4 is another embodiment of Lobiondo's teaching. The examiner is relying on fig. 4 (not the embodiment disclosed in column 6, lines 63-66) to reject applicant's claimed invention. Fig. 4 clearly teaches distributing a print job among printers.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is 571-272-7440. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 18, 2007



KING Y. POON
PRIMARY EXAMINER

KING Y. POON
PRIMARY EXAMINER